

**In the name of God**

**National Nutrition and Food Technology Research Institute**

**Faculty of Nutrition Sciences and Food Technology**

**Food Science & Technology (Quality Control)**

Doctor of Philosophy (PhD)

**Total Course Credits:**

- Core: 18
- Non-core (Electives): 14
- Dissertation: 24

**Program Description**

Food science and technology draws from many disciplines such as biology, chemical engineering, and biochemistry in an attempt to better understand food processes and ultimately improve food products for general public. The PhD graduates, as the, stewards of the field, study the physical, microbiological and chemical makeup of food. By applying their findings, they are responsible for developing the safe, nutritious food and innovative packaging that line supermarket shelves everywhere. The mission of the program is to train experts to do extensive and systematic research in a variety of foods' properties and composition in order to improve production, quality and maintenance of food and food products.

**Admission Requirements**

Holding an MSc degree in: Food Science and Technology (different branches), Agricultural Engineering (the branch of Food Science and Technology), Food Chemistry, nutritional sciences, Doctor of Medicine, Pharm-D or Doctor of Veterinary Medicine, Food Microbiology, and Food Science and Technology Engineering

- Being eligible for entering the program according to the PhD educational rules and regulations

**Table A: Core courses in Food Science and Technology (Food Quality Control & Hygiene) (PhD)**

CODE	UNIT NAME	NO. OF UNITS	NO. OF HRS			Prerequisite
			Theoretical	Practical	Total	
01	Advanced Food biochemistry	3	34	34	68	-
02	Advanced Food Rheology	3	34	34	68	-
03	Flavor and Aroma Biology of foods	3	34	34	68	-
04	Food processing and formulation	2	34	-	34	-
05	Bioactive ingredients	2	34	-	34	-
06	Modeling Food Processing Operations	2	34	-	34	-
07	Food quality control and safety management	1	-	34	34	-
08	Seminar I	1	17	-	17	-
09	Seminar II	1	-	34	34	-
<b>Total</b>			<b>18</b>			

**Table B: Non- Core courses in Food Science and Technology (Food Quality Control & Hygiene) (PhD)**

CODE	UNIT NAME	NO. OF UNITS	NO. OF HRS			Prerequisite
			Theoretical	Practical	Total	
10	Nanobiotechnology	2	34	-	34	-
11	Advanced Food Packaging	2	34	-	34	-
12	Food Toxicology	2	34	-	34	-
13	Physical Chemistry in Food Processing	2	34	-	34	-
14	Innovation in Food analysis and Testing	2	17	34	51	-
15	Innovations in Food References and Dietary Guidelines	2	34	-	34	-
16	Biofilms in Food Science and Technology	1	34	-	34	-
<b>Total</b>			<b>14</b>			